Reply to the Office Action dated: December 2, 2005

## **REMARKS**

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in Claim 1 relates to a process for the catalytic hydroformylation of an olefinically unsaturated compound having from 3 to 24 carbon atoms using an unmodified catalyst comprising at least one metal of groups 8 to 10 of the Periodic Table of the Elements, wherein the hydroformylation is carried out in the presence of a cyclic carbonic ester of the formula I

$$R^1$$
 $R^2$ 
 $R^3$ 
 $R^4$ 
 $R^4$ 
 $R^2$ 
 $R^3$ 
 $R^4$ 
 $R^4$ 
 $R^2$ 
 $R^3$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 

where

 $R^1, R^2, R^3, R^4$ 

are identical or different and are each H or a substituted or unsubstituted aliphatic, alicyclic, aromatic, aliphatic-alicyclic, aliphatic-aromatic or alicyclic-aromatic hydrocarbon radical having from 1 to 27 carbon atoms,

n is 0 - 5

X is a divalent substituted or unsubstituted, aliphatic, alicyclic, aromatic, aliphatic-alicyclic or aliphatic-aromatic hydrocarbon radical having from 1 to 27 carbon atoms,

with the proportion of the carbonic ester being at least 1% by weight of the reaction mixture.

Reply to the Office Action dated: December 2, 2005

<u>Drago et al</u> and <u>Maher et al</u> fail to disclose or suggest catalytic hydroformylation in the presence of at least 1% by weight of cyclic carbonic ester based on the weight of the reaction mixture.

The catalyst of <u>Drago et al</u> comprises a carrier and a non-volatile film containing a rhodium complex. The non-volatile film comprises triarylphosphine in combination with a second non-volatile liquid film which may be propylene carbonate. See Claims 6-8 of <u>Drago et al</u>. The **amount of propylene carbonate used for this film is very small** and much lower than the claimed at least 1% by weight based on the weigh of the reaction mixture. The Examples of <u>Drago et al</u> show that less than 0.3 % of propylene carbonate is used. See Examples 1, 2, 5, and 10 of <u>Drago et al</u>. However, the experiments of the present invention show that by using the claimed amount of propylene carbonate the rhodium precipitation can be prevented because of the stabilizing effect of propylene carbonate. See page 30, lines 11-22. In addition, the process of the present invention shows significantly higher chemoselectivity and allows simple recirculation of the catalyst without deactivation. See specification at page 30, lines 24-28. <u>Maher et al</u> does not cure the defects of the primary reference.

Therefore, the rejection of Claims 1 and 9 under 35 U.S.C. § 102(b) as anticipated by Drago et al, the rejection of Claims 2-4, 6-8 and 10-12 under 35 U.S.C. § 103(a) over Drago et al, and the rejection of Claims 5 and 13 under 35 U.S.C. § 103(a) over Drago et al in view of Maher et al are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

The objection to the specification is obviated by the amendment to the specification.

The objection to the drawings is obviated by the corrected drawings.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or

Reply to the Office Action dated: December 2, 2005

otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

Norman F. Oblon

Customer Number 22850

Tel: (703) 413-3000 Fax: (703) 413 -2220

NFO:KAG:

Kirsten A. Grueneberg, Ph.D. Registration No. 47,297

Reply to the Office Action dated: December 2, 2005

## **AMENDMENT TO THE DRAWINGS**

The attached sheets of drawings include changes to Figs. 1 and 2. These sheets, which include Figs. 1 and 2, replace the original sheets including Figs. 1 and 2.

Attachment: Replacement Sheets

Reply to the Office Action dated: December 2, 2005

## **BASIS FOR THE AMENDMENT**

The specification and the drawings have been amended as supported by the specification and drawings as originally filed.

New Claim 14 has been added as supported by the specification. New Claim 15 has been added as supported at page 29, line 16 of the specification. New Claims 16-20 are supported by the paragraph bridging pages 15 and 16 of the specification.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-20 will now be active in this application.

Reply to the Office Action dated: December 2, 2005

## **INTERVIEW SUMMARY**

Applicants wish to thank Examiner Witherspoon for the helpful and courteous discussion with Applicants' Representative on December 19, 2005. During this discussion it was noted that <u>Drago et al</u> and <u>Maher et al</u> fail to disclose or suggest catalytic hydroformylation in the presence of at least 1% by weight of cyclic carbonic ester based on the weight of the reaction mixture.